CONTRIBUTIONS
TO ENTOMOLOGY

72 (1): 101 – 104
2022

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SENCKENBERG

A new species of *Acrolocha* from North Iran (Coleoptera: Staphylinidae: Omaliinae)

With 5 figures

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Published on 2022–07–31
DOI: 10.3897/contrib.entomol.72.e87237

Abstract

A new species of the Holarctic omaliine genus *Acrolocha* THOMSON, 1858 from Gilan province, Northwest Iran, is described, illustrated, and distinguished from other West Palaearctic congeners. The genus now includes a total of 16 species, seven of which are distributed in the West Palaearctic region.

Taxonomic acts

Acrolocha iranica spec. nov. – urn:lsid:zoobank.org:act:431C41E1-1B53-444D-AA6A-EF59439A9EA9

Key words

Coleoptera, Staphylinidae, Omaliinae, *Acrolocha*, West Palaearctic region, Iran, taxonomy, new species

Zusammenfassung

Eine neue Art der holarktisch verbreiteten Omaliinengattung *Acrolocha* THOMSON, 1858 wird aus der Provinz Gilan, Nordwest-Iran, beschrieben, abgebildet und von anderen westpaläarktischen Arten der Gattung unterschieden. Die Gattung enthält damit derzeit insgesamt 16 Arten, von denen sieben in der Westpaläarktis verbreitet sind.

Schlüsselwörter

Coleoptera, Staphylinidae, Omaliinae, *Acrolocha*, Westpaläarktis, Iran, Taxonomie, Neubeschreibung

Introduction

Acrolocha THOMSON, 1858, a small Holarctic genus of Omaliinae, previously included 16 species, four of them distributed in the Nearctic and twelve in the Palaearctic regions, with one of the Palaearctic species adventive also in North America (HERMAN 2001, SCHÜLKE & SMETANA 2015, SHAVRIN 2017, SHAVRIN & SMETANA 2016). Six of the Palaearctic species are confined to the East Palaearctic, five to the West Palaearctic, and the distribution of one (*A. pliginskii* BERNHAUER, 1912) ranges from North, Central, and

South Europe eastwards to West Siberia. Four of the West Palaearctic species are widespread, two are confined to Italy (*A. daccordii* Zanetti, 1979) and the Caucasus region (*A. caucasica* Tóth, 1976), respectively. Diagnostic keys and illustrations of the aedeagi of the species of the West Palaearctic region were provided by Tóth (1976), Zanetti (1979, 1987, 2012), and Shavrin & Khachikov (2019). Records of *Acrolocha* species are generally rare, also because specimens are primarily found in autumn, occasionally also in spring (Zanetti 1987, 2012).

Material of Staphylinidae from North Iran sent to me by Jörg Müller (Grafenau) for identification included two specimens of *Acrolocha*. A closer examination and comparison with other West Palaearctic species revealed that they represented an undescribed species.

Material and methods

The material treated in this study is deposited in the author´s private collection (cAss).

The morphological studies were conducted using Stemi SV 11 (Zeiss) and Discovery V12 (Zeiss) microscopes, and a Jenalab compound microscope (Carl Zeiss Jena). The images were created using digital cameras (Axiocam ERc 5s, Nikon Coolpix 995), as well as Labscope and Picolay software.

Body length was measured from the anterior margin of the labrum to the posterior margin of tergite VIII, the length of the forebody from the anterior margin of the labrum to the posterior margin of the elytra, head width across and including the eyes, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra, and the length of the aedeagus from the apex of the ventral process to the base of the aedeagal capsule. The "parameral" side (i.e., the side where the sperm duct enters) is referred to as the ventral aspect.

Description

Acrolocha iranica spec. nov.

urn:lsid:zoobank.org:act:431C41E1-1B53-444D-AA6A-EF59439A9EA9

(Figs 1–5)

Type material: Holotype ♂: "IRAN - Gilan, Shafarood, 37.67°N, 48.57°E, pitfall trap, 13.X.2018 / Holotypus ♂ *Acrolocha iranica* sp. n., det. V. Assing 2022" (cAss). Paratype: 1 ex. without abdomen: same data as holotype (cAss).

Etymology: The specific epithet is an adjective derived from Iran.

Description: Body length 2.8 mm; length of forebody 1.7–1.8 mm. Habitus as in Fig. 1. Colouration: head, pronotum, and abdomen black, with abdominal segments VIII–X and the posterior margin of segment VII dark-yellow; elytra dark-brown to blackish-brown; legs reddish-brown; antennae bicoloured with antennomeres I–VI reddish-brown and VII–XI blackish; maxillary palpi dark-reddish.

Head (Fig. 2) with coarse network of microstriae composed of irregular meshes of various sizes, shapes, and orientation, with dense and coarse punctation in antero-lateral portions; ocelli small and indistinct, separated from each other by a distance greater than that between ocelli and eye margins. Antennae 0.65 mm long and shaped as in Fig. 3.

Pronotum 1.45–1.50 times as broad as long and 1.35–1.40 times as broad as head, broadest in the middle, without impressions on disc and at margins, and with network of microstriae similar to that of median portion of head.

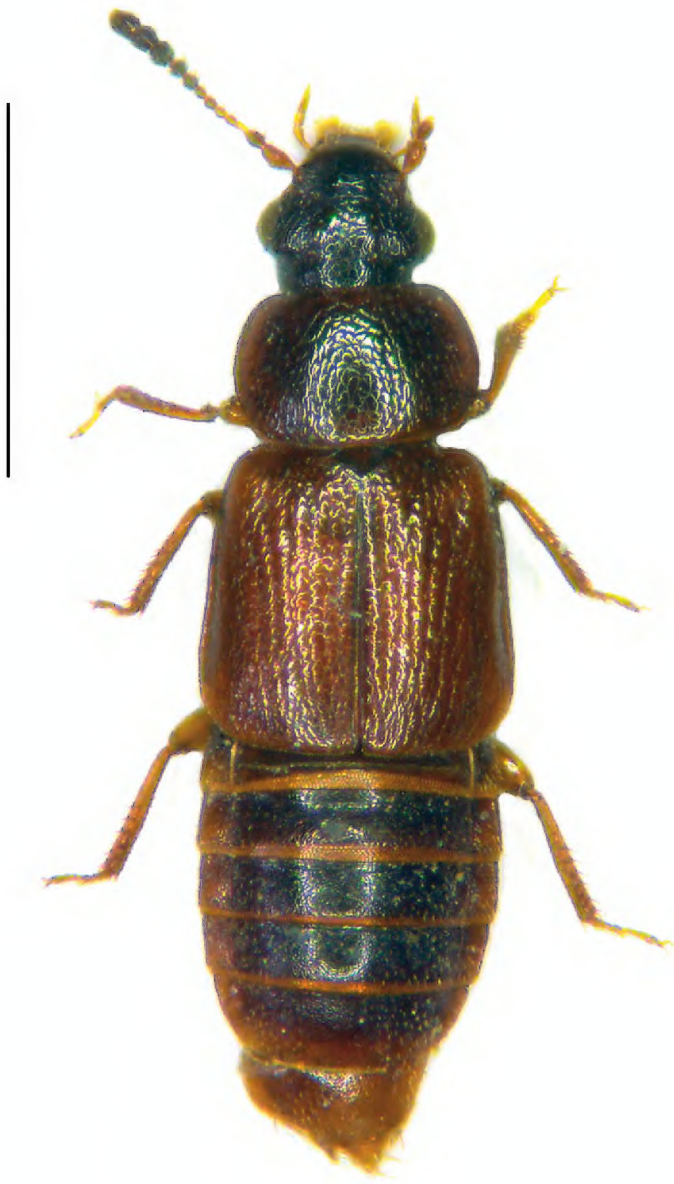
Elytra 1.61–1.68 times as long and 1.31 times as broad as pronotum, with network of microstriae forming very large meshes, without additional microsculpture.

Abdomen with distinct microreticulation composed of fine isodiametric meshes; posterior margin of tergite VII with palisade fringe.

♂: aedeagus 0.45 mm long and shaped as in Figs 4–5; ventral process of lanceolate shape, apically acute in ventral view; parameres apically slightly extending beyond apex of ventral process, each with two rather long and stout subapical and with very short and fine apical setae.

Comparative notes: *Acrolocha iranica* is distinguished from other West Palaearctic congeners by the structure of the aedeagus and additionally as follows:

- from *A. minuta* (Olivier, 1795) by larger body size, the absence of impressions on the pronotum, a greater distance between the ocelli, a network of microstriae composed of much larger meshes on the forebody, and less strongly convex lateral margins of the pronotum (dorsal view);
- from *A. amabilis* (Heer, 1841) by a network of microstriae composed of much larger meshes particulary in the postero-median portion of the head and in the posterior portion of the elytra;
- from *A. pliginskii* by a much more transverse pronotum, darker legs, different colouration of the antennae (*A. pliginskii*: antennomeres I or I–II reddish-yellow), and a network of microstriae composed of much larger meshes in the posterior portion of the elytra;
- from *A. sulcula* (Stephens, 1834) by different colouration of the antennae (*A. sulcula*: antennomere I pale-reddish, distinctly paler than the following antennomeres) and relatively larger elytra with coarser meshes of microstriae in posterior portion;
- from *A. caucasica* by darker legs, the colouration of the antennae (*A. caucasica*: antennae blackish with antennomere I dark-reddish or antennomeres I-V/VI reddish-brown to brown), less distinct ocelli,



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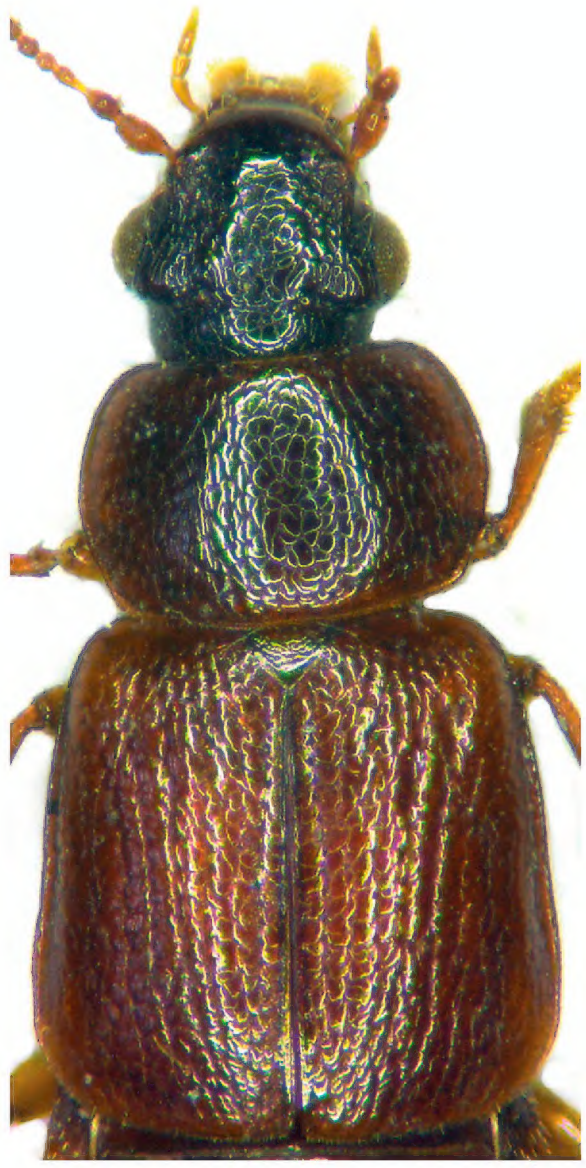

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Figs 1–5: *Acrolocha iranica*: (**1**) habitus; (**2**) forebody; (**3**) antenna; (**4–5**) aedeagus in ventral view. Scale bars: 1: 1.0 mm; 2: 0.5 mm; 3–5: 0.2 mm.

the shapes of antennomeres VIII-X, larger meshes of microstriae on the head, the shape and chaetotaxy of the parameres (*A. caucasica*: parameres shorter and with four fine apical setae), and a broader and medially dilated ventral process of the aedeagus.

For illustrations of the aedeagi of the compared species see Tóth (1976), Zanetti (1987, 2012), and Shavrin & Khachikov (2019).

The geographically closest species from the East Palaearctic region is *A. rogeri* Shavrin, 2017 from Nepal,

which differs from the new species by a smaller aedeagus with a relatively shorter ventral process, the shapes of the internal structures, and the chaetotaxy of the parameres, by a less transverse pronotum, relatively broader elytra, paler colouration of the body, the legs, and the antennae, the presence of two impressions on the pronotum, and other characters. For illustrations of the aedeagus of *A. rogeri* see Shavrin (2017).

Distribution and natural history: The type locality is situated in Gilan province, Northwest Iran. The specimens were collected with pitfall traps in a grazed primary beech forest at an altitude of 1080 m in October.

Acknowledgements

I am indebted Jörg Müller (Grafenau) for the generous gift of the type material of *Acrolocha iranica*. Benedikt Feldmann (Münster) and Alexey Shavrin (Daugavpils) proof-read and reviewed the manuscript.

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